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Remarks

Applicants respectfully request reconsideration and allowance of the present application in view of the following remarks.

Claims 1-78 are pending in the application. Claims 1, 4, 14, 21, 39, 42, 48, 50, 52, 54, 59, 64, 65, 69, 75, and 78 are the independent claims. Claims 27-38 are withdrawn from consideration.

Initially, Applicants acknowledge with appreciation the indications that claims 39-53, 76, and 77 are allowed and that claims 19, 20, 58, and 73 recite patentable subject matter and would be allowable if rewritten in independent form to include all of the features of their respective base claims and any intervening claims. By the present Response, Applicants have not amended any of claims 39-53, 76, and 77 and respectfully submit that these claims should remain allowed. Also, Applicants have respectfully maintained claims 19, 20, 58, and 73 in dependent form because it is believed that their respective base claims patentably define over the citations of record, at least for the reasons discussed below.

Claims 1-3, 21-26, 64-68, 75, and 78 stand rejected under 35 U.S.C. §102(b) as being anticipated by EP 0617441 to Kau. All rejections are respectfully traversed.

Independent claim 1 recites, *inter alia*, a mix of recyclable carbon and binder particles.

Independent claim 21 recites, *inter alia*, a dry mix of recyclable dry binder and dry carbon particles.

Independent claim 64 recites, *inter alia*, one or more recyclable electrode film.

Independent claim 65 recites, *inter alia*, one or more self-supporting recyclable dry process based electrode film.

Independent claim 75 recites, *inter alia*, a plurality of recyclable dry processed carbon and binder particles formed as an electrode.

Independent claim 78 recites, *inter alia*, dry process recyclable electrode means for providing electrode functionality in an energy storage device.

Applicants respectfully submit that Kau does not teach or suggest at least the aforementioned features of independent claims 1, 21, 64, 65, 75, and 78.

The Office Action repeatedly acknowledges that Kau does not expressly state that the carbon and binder particles and the film are recyclable, and contends that the carbon and binder particles and the film are inherently recyclable. Specifically, the Office Action repeatedly states "possible to use again – see process" (emphasis in original). These contentions are respectfully traversed.

MPEP §2112 states "The fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic." Further, MPEP §2112 cites *In re Robertson*, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999), which states that "To establish inherency, the extrinsic evidence 'must make clear that the descriptive matter is necessarily

present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. Inherency, however, may not be established by probabilities or possibilities. There mere fact that a certain thing may result from a given set of circumstances is not sufficient.” Thus, the Office Action’s contentions that it is “possible to use again” is not sufficient to establish inherency.

“In relying upon the theory of inherency, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art.” *Ex parte Levy*, 17 USPQ2d 1461, 1464 (Bd. Pat. App. & Inter. 1990) (emphasis in original). The Office Action has provided no basis in fact or technical reasoning to support the contention that the carbon and binder particles and the film are recyclable necessarily flows from the teachings of Kau. Further, at page 9 of the Office Action, the Office

Accordingly, favorable reconsideration and withdrawal of the rejection of independent claims 1, 21, 64, 65, 75, and 78 under 35 U.S.C. §102 are respectfully requested.

Claims 4-13, 59-63, 69-71, and 74 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,100,747 to Hayashida et al. in view of U.S. Patent No. 4,313,972 to Goller et al. Claims 4, 18, 54-57, 69, and 72 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Kau in view of U.S. Patent Application Publication No. 2003.0186110 by Sloop. Claims 14 and 16 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,168,019 to Sugeno in view of Sloop. Claim 15 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Sugeno and Sloop in view of U.S. Patent No. 5,720,780 to Liu et al. Claim 17 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Sugeno and Sloop in view of U.S. Patent Application Publication No. 2003/0113535 to Sano et al.

All rejections are respectfully traversed because the Office Action has failed to establish a *prima facie* case of obviousness.

Section 2142 of the MPEP explains that a *prima facie* case of obviousness requires that there be some suggestion or motivation, either in the references themselves or in the knowledge of one of ordinary skill in the art, to modify combine reference teachings. It is for this reason that the mere fact that a combination can be made is legally insufficient to support an obviousness rejection. (MPEP § 2143.01). The Office bears the initial burden of factually supporting any *prima facie* conclusion of obviousness.

If the Office does not produce a *prima facie* case, the Applicant is under no obligation to submit evidence of nonobviousness. (MPEP §2142). Applicants respectfully submits that such is the case in the present application.

Applicants respectfully submit that the asserted combinations of Hayashida et al. and Goller et

al., Kau and Sloop, and Sugeno and Sloop neither expressly or impliedly suggest the asserted combination. Indeed, Applicants note no such contention in the Office Action. Thus, as part its initial burden to establish a *prima facie* case of obviousness, the Office "must present a convincing line of reasoning as to why the artisan would have found the claimed invention to be obvious in light of the teachings of the references, MPEP §2142, citing *Ex parte Clapp*, 227 USPQ 972, 973 (Bd. Pat. App. & Inter. 1985). However, the Office Action provides only a single, unsupported line of reasoning for the alleged motivation to make each of the asserted combinations.

At pages 6, 8, and 9 of the Office Action, it is repeatedly asserted that one of ordinary skill in the art would have been motivated to modify Hayashida et al. in view of Goller et al. "since such a modification would recycle the mixture thereby reducing waste." The Office Action acknowledges that Hayashida et al. fails to disclose recycled particles, and Goller et al. is relied upon to cure this deficiency. Applicants respectfully disagree, however, with the assertion that Goller et al. teaches that it is well-known in the art to recycle mixtures that are recovered from a process. Rather, Goller et al. merely discusses that, in the specific process taught by Goller et al., the excess may be reclaimed and can be reconditioned for reuse. Goller et al. fails to teach or suggest that reclaiming materials for reuse in any other method for producing an electrochemical cell electrode. Applicants note that "The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination." *In re Mills*, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990).

At pages 10 and 11 of the Office Action, it is repeatedly asserted that one of ordinary skill in the art would have been motivated to modify Kau in view of Sloop "since such a modification would provide a material that has been recycled (conserves natural resources)." The Office Action acknowledges that Kau fails to disclose that at least some of the carbon and binder particles are recycled particles, and Sloop is relied upon to cure this deficiency. Applicants respectfully disagree, however, with the assertion that Sloop "teaches that it is known in the art to reuse carbon particles in batteries." Rather, Sloop merely discusses that, after removing an electrolyte from an energy storage and/or conversion device using a supercritical fluid according to the method described in Sloop, graphite carbon may be recycled. Sloop fails to teach or suggest that the reuse of carbon particles in batteries is known in the art. Again, Applicants note that "The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination." *In re Mills*, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990).

At page 12, the Office Action asserts that one of ordinary skill in the art would have been motivated to modify Sugeno in view of Sloop "since such a modification would provide a material that

has been recycled (conserves natural resources)." While Applicants agree that Sugeno fails to teach or suggest the use of recycled particles, Applicants respectfully disagree with the assertion that Sloop teaches the use of recycled particles. Rather, as stated above, Sloop merely discusses that, after removing an electrolyte from an energy storage and/or conversion device using a supercritical fluid according to the method described in Sloop, graphite carbon may be recycled. Sloop fails to teach or suggest that the reuse of carbon particles in batteries is known in the art. Again, Applicants note that "The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination." *In re Mills*, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990).

With respect to the asserted combination of Sugeno, Sloop, and Liu et al., Applicants respectfully submit that Liu et al. fails to cure the deficiencies of Sugeno and Sloop set forth above.

With respect to the asserted combination of Sugeno, Sloop, and Sano et al., Applicants respectfully submit that Sano et al. fails to cure the deficiencies of Sugeno and Sloop set forth above.

Accordingly, reconsideration and withdrawal of there rejection of claims 4-18, 54-57, 59-63, 69-72, and 74 under 35 U.S.C. §103 are respectfully requested.

In view of the foregoing, Applicants respectfully submit that the independent claims patentably define the present invention over the citations of record. Further, the dependent claims should also be allowable for the same reasons as their respective base claims and further due to the additional features that they recite. Separate and individual consideration of the dependent claims is respectfully requested.

There being no further outstanding objections or rejections, it is submitted that the present application is in condition for allowance. An early action to that effect is courteously solicited.

Respectfully submitted,

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Date



Thomas J. Osborne, Jr., Reg. No. 39,796
Attorney for Applicant
USPTO Customer No. 59542

HENSLEY KIM & EDGINGTON, LLC
1660 Lincoln Street, Suite 3050
Denver, Colorado 80264
Tel: 720-377-0759
Fax: 720-377-0777